GAZETTE SUPPLEMENT, FEBRUARY 15, 1887.

HAWAII'S GREAT WONDER!

THE LAVA FLOW OF 1887!

MAP OF HAWAII SHOWING THE RECENT FLOWS.

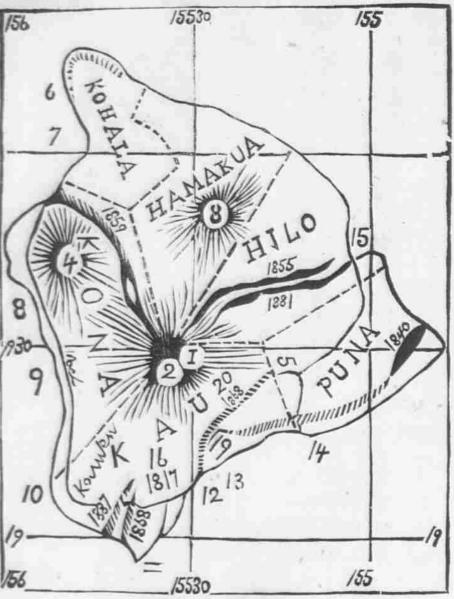


TABLE OF REFERENCE:

1—Samuit Crater of Mokunwowee. 2—Mauna Lon, 13,375 feet. 3—Mauna Ken, 13,305 feet. 4—Mr. Huainiai, 8,275 feet.

5-Kulauca Crater, 4,040 feet: on the slope No. 15-Hilo Bay and village, of Manna Lon.

6-Mahakona-terminus of Kohala R. R. Places IN K.

Kawalhas Bay -Kealakekus Bay-where Captain Cook

The lace flows are marked in black and dated

No. 12-Hou uspo landing. No. 13-Punatuu landing. No. 14-Keauhon landing-for Kilauea, W. S. S.

PLACES IN KAIL

No. 16-Hiles Plantation.

No. 15—Matchinu, No. 15—Jones' Ranch—two miles from the new

was killed.

Hills of Pele.

Ka Lae Cape—southeramest point of No. 19—Pahala Plantation.

THE STORY OF THE FLOW.

EXPLANATORY.

Now that the great lava flow has ceased, or at all events has taken a rest, one can collect together in some more taugible form the attered information written hastify and often under great excitement.

In order to give its readers as clear an idea of the places so frequently referred to in the accounts, the Gazarra has had a sketch map prepared. The aft of wood engraving is not one which has made any great strides in Hawaii, but a Chinaman was found, who had some tools and who undertook the work. Considering the difficulties he had to contend with among them being the fact that he could not speak a word of English, we think he did tolerably well.

MATS. The district of Kau, in which the flow occurred, occupies the southernmost portion of Hawaii, the largest and most southerly of the Hawaiian group. The southeastern por-tion of the district is fine cane land, and some of the largest and most productive of plantations are situated there. western part contains pasture land. At a distance of a few miles from the shore, the forest commences, and rolls up the sides of the mountain for twenty miles or more. The constantly active crater of Kilaues (map is situated just on the boundary between Kau and Puna, on the slope of Mauna Loa, a huge dome-shaped mountain which slopes into five out of six of the districts of Hawaii. This is the crater so frequently The summit crater of Mokuaweo wee: 13.500 feet above the sea level (map No. 1), is rarely visited, the journey being long and ardnous. It is from this summit crater that the flows of 1851, 1855, 1859, 1863, 1881 and 1887 have originated. The lava does not boil over the lip of the summit crater, but finding some weak spot in the mountain side, bursts through and rushes with irresistible force down the mountain side.

THE REGINNING. A bright light and a column of fire was first observed from the summit crater of Manna Loa on the night of Sunday, January 16th, by observers from Hilo (map No. 15), Mahukona (map No. 6), and from Watchinu, Hiles and Pabala (Nos. 17, 16 and 19), in The time was about 9 p. m. Shortly ufter 11 p. m. the fire died down, and the next evening no light was observed. But that volcanic disturbance was going on on a grand scale became evident to the inhabitants of Kau, for earthquakes came with most unpleasant frequency, Mr. Jones, pro-prietor of the Kabuku ranch, registering 383 rell-defined shocks from 2:12 a, m, of the 17th to sandown of the 19th, when for a time the shocks ceased.

Meanwhile the lava had evidently been working its way down the mountain by an underground passage, and at 7 p. m. of the 18th it burst forth from the ground about ten miles N. N. W. of the Kahuku ranch (map No. 18). Sheriff Smith visited the head of the flow on the 19th. The lava was coming forth from a crack, which by pacing he estimated at three-quarters of a mile in length and having an average width of not more than 25 feet. This extended up the moun tain, tending a little towards the east. About a quarter of a mile above the main crack was a cone, the side towards the sea caved From this lava was boiling up, but it disappeared quickly, and running under-ground, resppeared in the crack. From this erack another crack extended, pouring forth dense smoke, and extending up the mountain for two miles and a half. This Mr. Smith followed. On reaching the end he had a view up the mountain, and saw masses of smoke pouring from a group of cones, known as Pohakuohanalei, situated close to the erater of Mokuawooweo, and there, in all

probability, was the real source of the flow. The length of the flow is estimated at twenty miles, and this distance the tays accomplished in two days, reaching the sea on the evening of January 20th. The stream continued running till Saturday night, the 29th, when, as will be found described below there was a river of fire, distinctly visible, whole length of the flow. The main cuntain continued playing for some days fter, but the flow itself rapidly cooled over, d on the evening of 1st of February was liquid lava, however, continued to run under

night of terror." These shocks were felt of iron nerve and calm judgment, passed "a and recorded in Hilo, Hamakua and Kohala; the other districts are little settled, and have not been heard from, but the whole island must have been shaken. Mr. Jones, of the Kahaku Ranch, writes that at 3:30 a.m. of February 2d, the date of his last letter, no shocks had been felt. We may add that Pele, so often named by our correspondents,

is the name of the Hawaiian Goddess of Fire—the Genius of Manualoa's furnaces. THE PLOW BY NIGHT.

We are indebted to Major Benson, U. S. A., for the following account of the flow, as seen from the steamer W. G. Hall, which left Honolulu, on Friday, January 28th, reaching the Kan coast on Saturday evening. The Major was also one of the few who rode to the source. The Major says:
On the afternoon of Saturday the 29th, we

just came in sight of the flow. satisfaction prevailed, but toward might the scene brightened and many apologies were due to Pele, and now commenced leager exclamations of excitement as with the increased darkness point after point of fire was developed along the course of the flow until a culmination of this wonderful sight was reached about 2:30 a. m., when from the titantic cauldron at the head were belched forth masses of liquid fire one hundred and fifty feet high, and from which a running stream of fire in the shape of the letter Z could be seen extending to the sea. Place before your mind the natural panorama of a river of fire fourteen miles long, coming down to the sea from an elevation of 5,000 feet, with the massive background of snowcapped Mauna Loa, 14,000 feet high, and a foreground of the Pacific, then you can form some adequate idea of this wonderful picture. After landing on Sunday morning, I finally arrived at Watohing, a very pleasant little village where they entertain most hos-pitably, and about noon determined to join a party leaving a short time for the head of the flow."

Our route lay for some distance along the flow of 68, and the trail crossed within a half a mile of where it had issued. The path through the woods was difficult to follow and in all respects a most fearful one. A line of an old song "Jordan am a hard road to trabwas continally running through my head. Finally, thoroughly drenched, we camped in a wretched but for the night, and about 8 a. m. the next morning, started for the head of the flow which was reached by a road most trying to both man and beast. There a scene of utter desolation and de-struction to all living things was presented

In the apparent centre of great masses of black lava, was a ridge of the same, at the head of which was a crater of about one hundred and twenty-five feet circumference, around which, at intervals, formed a circle of living fire, while a huge bluff just beyond was frequently aglow About two or three hundred yards below the crater, the molten lava poured forth in streams, and at some distance below this, a new crater was being formed, from which quite often, stone and masses of burning lava were thrown up, to a height of forty or fifty feet. Adjoining this, was a higher crater, from a hole near the top of which, a stream of fiery lava gushed forth like a torrent, and below this

two smaller streams of lava rushed forth.
At times the whole ridge of craters and their walls were aglow, and half a dozen streams of lava would pour forth, and then again dying out, it appeared like pumice stone, showing no signs of activity,

About every twenty minutes a dense column of black smoke rose at a point some five or six miles above.

THE PLOW AS IT IS.

By the steamer Kinau, which left on Janu' ary 31st, the Rev. S. E. Bishop went forward as special correspondent of the GAZETTE. He gives an excellent account of the present ap-pearance of the flow, after the rush of fire was over. Mr. Bishop is well-known in the scientific world as the discoverer of that appendage to the sun, which has been called after him, the "Circle de Bishop," he also wrote the third prize essay on the Krakatoa Eruption, contending against some of the most brilliant thinkers of the day.

Mr. Bishop writes as follows: Our Kahuku tourist crowd of 137, on the Kinau, left Mahukona at noon on Thursday, February 1st. Coasting along the immens-clinker flow of '59 at Kibolo, many received

visiting Kaawaloa and Cook's monument (see map, No. 9). Before night we left behind the steeples and white villages of Hona-unau and Hookena, and began to approach the clinker desserts and long lava stretches of Kau. The sun sank slowly in the smoke, a dull red ball. An ominous line of dark clouds hung heavily beyond the long south Kona cape, stretching back to rest upon the flank of Mauna Loa, which was veiled in mist and smoke.

As the night settled down, we strained our eyes for the deep red glow of the eruption. There was no light but that of the quartering moon. We swept around the southwest cape, and then past the famous landmark of the Pele hills (map, No, 10), and the scene of action was before us, but all was dark. A long black point was visible from the ship as her engines stopped, but not a trace of light, "That's your lava flow," said the Captain—"Hoka," was the response of the passengers—but the boys and girls made merry, while we oldsters turned At 1 p. m., we were awakened to see faint dots of fight far up the mountain. These were undoubtedly reflections from the source of the eruption. Some gleams of fire source of the eruption. Some gleams of fire had also been seen at the shore. At daylight we steamed in some six miles

from where we had lain around for the night. The same dark cloud kept its station marking the course of the hot flow directly beneath it. Mauna Loa's vast done, now cloudless, was far inland, but dim in the haze. To the right stretched away the long low south point of the island. Inland about six miles he groves and buildings of Jones' ranch broke the line of the long slope. Close to this could be seen the black line of the pa-hoehoe flow of '68, terminating broadly at the sea near Merchant's Hill, two or three miles to the right. In front were other and older flows, among which, broader and placker than the rest, spreading lawless and ragged down the stony slope to the level bot-

toms, lay hot and tumultuous the flow of '87.

The hot air over the flow rises in a strong current. At the height of perhaps 3000 feet from the surface it rarifies and chills, con-densing the aqueous vapor with which all air is loaded, thus forming a dark massive cloud exactly over the flow and marking its course. Some seven miles inland this line of cloud made a sharp turn or elbow to the northward, directly towards the summit crater of Mokuawecweo. We had the pillar of cloud by day, but to our chagrin, no pillar of fire by night. Noting the length of this cloud, and where it appeared to terminate, I estimated the length of the flow at from 16 to 23 miles, and the head of it very much more than twice as far inland as Kahuku Ranch.

The front of the new lava was easily dis tinguished as we steamed up to it by its black and rugged piles and outjetting points, in contrast with the whitish mossy sea-line and older rocks on each side. From most parts of its shore small clouds of steam were rising thickly. From a cove near, its south side a large jet of strong steam rolled con-tinuously, and clouds of this swept up inland. Hereabouts for fifty feet out from shore the water was covered with visible We stopped near the south side, dropped our boats and rapidly landed the crowd of 200 visitors, including natives. We climbed up the rocks some twenty feet from an old pahoehoe flow. This was a mass of hummocks, wrinkles and bubble caves, but quite easily climbed over. Many large sea-worn boulders and much sand had been flung up 100 feet or more inland over this by the tidal wave of 1868. A lauhyla grove was on one spot of sand, and the green streamers of the maia pilo lay in profusion on the lava with their great lovely, plumed white flowers.

But to the left the vast, hideous mounds of Pele's awful work enchained our eyes. Like enormous piles of brownish coal, but indescribably more ragged, stretched inland over the low, rising plain for two miles to the mountain slope, in a substantially direct line, this bank of hot cinder, averaging 25 feet high on the edge, but rising towards the middle to an average height of 40 feet. Many points must have been 20 feet or more above the general level, if the word level can be used of such chaotic masses of ruin. The sides of the mass were steep and crumbling, composed of large, ragged clinkers and fine cinder intermingled, difficult enough to climb, on its jagged but yielding footing. The whole seemed like a colossal embank ment, as if 10,000 cyclopean trains of mastodon cars had been dumping the rocks of Mauna Loa for a century, towards the sea.

All was shimmering with heat. We found our way up the crumbling neaps of pumice and slag, and, reckless of singeing boots and hot blasts from below, scrambled around among the sharp and ragged pinnacles to higher points, whence only a wider waste and wider desolation were to be seen. At one point a party were charring their sticks in a red-hot hole. At another, was a rent 50 feet long, while some 15 feet below, was a great glow of almost white heat along its length. There was an almost entire absence of noxious odors and gasses, and even of steam, though sudden hot blasts of air would often drive one aside.

The sea front was the most impressive. Here the great embankment rolled over a cliff of some twenty feet, making slopes of from fifty to seventy feet high from the water along a shore of from three-fourths to a whole mile in length. I consider it cer-tainly not less than the former distance. This sea front is broken into a succession of long ragged capes and deep coves, with many wide beaches of coarse, black gravel thrown up by the waves, looking like shiny nut coal. and there huge round boulders, bristling with adhering cinders, lay half buried in the ragged slopes. One of these was visited and found to be twenty feet long. Are they fragments of the mountain's mas sive throat, toru off by the outrushing flood, which half melts and rounds them? water near the shore was generally from 100

to 120 degrees Fahrenheit, and in spots much higher, and steaming. The northwest side of the flow presents a straight, solid embankment, apparently 30 or 40 feet high, at an angle of 40 degrees to the coast line, stretching northwards for apparently a note or more, then turning in-land. Evidently the breadth of the stream is fully one and a hort makes a short distauce inland. I judge that on the lower slope are deposited three square miles of clinkers, 30 or 40 feet in depth. The flow evidently overreaches the original coast line from 200 to 500 feet, making some thirty acres of new land. Much of this last is of great depth, soundings being 20 to 30 fathoms close to the shore. A large or rapid extension of coast is impossible where such a depth is to be filled in.

It is comparatively easy to estimate the amount of forces involved, and the collossal dimensions of the great tidal wall of mingled white lava and scoria foam that rolled so steadily and massively toward the sea which it first reached more than two weeks before. One can perhaps partially imagine how that tide of fire and recks of near a mile wide rolled for a week over the shore into the deep and convulsive ocean. But I have never seen work of that sort, and I have no powers of imagination to conceive the awful splendor of the downward charge of that mile-broad deluge of fire, nor the hor-ror of tornado clash and roar with which that vast wall of rolling rock and cinder pressed forward over the land, piling up on the plain, crashing into the sea. We saw but the dead and dying remains—dreadful, dark and silent.

We were very fortunate on the following day at Hilo, to meet Mr. G. H. Paty who had just returned from Kahuku, being one of Rev. Mr. Parker's party to visit the head of the flow, where they spent Friday night, the 28th ult. I obtained from Mr. Paty the following facts. The altitude of the last point of emission is 5,700 feet, by aneroid. Dis-tance from Jones' ranch 16 miles by pedometer, route quite direct though mostly koa woods. Estimated distance from sea, twenty miles. Source of the flow is above the tim ber among sparse ohia and ohelo. It has channel.

After the violent shocks of January 17th, 18th and 19th, there was a cessation of carthquakes, though slight tremors were felt, till Sanday, January 23d, when several very slope or channel.

Camber flow of 39 at Kinolo, many received the among sparse ohia and ohelo. It has the first impressions of the black desolation of a lava stream. Still farther, near miles, on a fissure evidently much longer. During their visit the output was confined to stretches of the flow of 1801, from Hualalai, Kaelehuluhulu. Off the point we met a slope which reported a glow from the Wa.

white in the daytime. Much pumice-like stone was flung out, and the clink and crash of the falling liquid was tremendous. Mr. Baker was struck by a fragment of falling pumice, which he preserved as a memento.

The lava in its descent appeared to be making an exclusively. Pahoehoe was seen

however, mingled in some portions of the flow visited. The lava was bright on Sunday night the 30th, as seen from Kahuku Ranch near by, and much glow was visible on Monday morning both there and at the source. Mr. Jones reported it to have reached the sea in 26 hours from the start. Mr Paty visited it near Jones', making aa. It was running about 4 miles an hour. The breadth of the whole stream there was balf

a mile. Judge Hitchcock, and other experienced observers, express a decided opinion that the present cessation is temporary, and that the flow will break out again, Mr. H., who flow will break out again. Mr. H., who firmly believes the flow of '68 to have originated in Kilauea, is positive that the present flow is from Mauna Loa. No doubt lava often shows up-hill capabilities, but a lift of 2,500 feet from Kilanea's open caldron is a little too much. In the case of the present flow, Kilauea continued in statu quo, while Mokuaweoweo was in eruption. Mr. Smithies of Mahukona informs me that at 9 p. m. of Sunday, January 16th, he saw a brilliant jet of fire shoot up from Mokuaweoweo to a great height, and gradually subside, disappearing in ten minutes. The glow on the clouds continued until 11 p. m. No more glow was seen until Tuesday evening, when a very bright glow from the lava appeared over the east flank of Haulalai.

I can add no more of special interest about the eruption of 1887, except that it is un-questionably much greater in quantity than that of 1868, being more than twice the length of the latter, and of greater depth on the ground. I would, however, take this opportunity of stating an interesting volcanic fact observed in steaming around the south point of Hawaii-a fact which, so far as I know, has not been hitherto remarked. My attention was specially directed by Hon. A. F. Judd to a remarkable surface layer of yellow ochre, or similar matter, of many feet in depth. This I could see extending, as a conspicuous object, over the entire length of eight miles of the peculiar bluff which runs from Kahuku Ranch to the South Cape (No. 11). On rounding the South Cape, this layer was still conspic the coast. Occasionally a recent lava flow of small breadth lay over it. A small, steep cinder cone on the shore was overlaid by the yellow stratum, like snow on a roof. once perceived that it was somewhat analogous to snow. It was manifestly nothing more nor less than a thick layer of yellow ashes, distributed from some eruption in Kau, probably thousands of years ago. The yellow layer continued along the coast until reaching Honuapo (map No. 12), 15 miles from the Cape, and 10 miles from Kahuku bluff. At Honuapo, a bluff appeared, formed by the sea eating into the end of the very broad and long mound upon which Naalehu cane-fields are situated. This bluff disclosed the peculiar stratification of a cinder cone. Punchbowl or Koko Head, on Oahu. The color of the rock and einder was of the same peculiar yellow as the ash layer which we traced to it. We are thus enabled to determine the very remarkable and important fact that at a recent period, although pre-historic, the Honuapo or Naalehu mound was formed by an explosive eruption of yellow cinder, which covered at least 100 square miles to the westward with yellow ashes several feet in thickness. It must have belonged to the larger class of explosive eruptions. I hereby file my careat for this discovery, in case no one has re-

corded a patent of prior date. I close with a most hearty expression of my sense of the splendid qualities of the Kinau, which spun us royally around Ha-waii of the gastronomic merits of her table (what magnificent appetites we had four or five times a day; of the cheery, jolly spirits of the merry crowd of passengers, and of the cordial, friendly attentions of Capt. Lorenzen and Purser Beckley, which did so much to keep us all in tune. S. E. BISHOP.

A HILO VIEW. Judge Hitchcock of Hilo, supplies the following notes from the Hilo side of the

HILO, February 3, 1887 EDITOR GAZETTE: - The steamer Kinau landed a disgusted lot of passengers here this morning, and all agree in saying that the flow is "make loa." Perhaps so. As far as I can learn, the flow, so far, is one of If no pahoehoe has been ejected, it is bound to come later, as all our Mauna Loa flows have first thrown out aa, and after that had ceased running, then pahoehoe follows. This, without exception, since the flow of 1843, between Mauna Loa and Mauna Kea, has been the case with all the flows from the mountain. The flow of 1880-1 did not run out pahoehoe until some two months after the eruption commenced. It may be that the vent is clogged and it will take another violent shock to open it for the pahoehoe to flow. From a gentleman just from the scene of the flow. I find that it was not on the old flow of 1868 line at all, but some nine miles

further up the mountain.

We are experiencing slight shocks almost every day or night, up to last night. A very heavy pall of volcanic smoke hides Mauna Loa from here, while the snow-capped top of Mauna Kea stands forth in a blue haze of smoke. If the flow at its source is at rest, and there is no further volcanic action there, the smoke would all have been blown to sea by the strong trades that have been blowing the past week. As it is, I feel as though the end of the flow was not yet. It may be however, and we all await anxiously to knew if

For the past three days, the delage of rain that has been pouring down steadily for the last three weeks, let up, and we have had a chance to dry out a little.

The town appears lively, with so many of our Honolulu friends thronging the streets. A heavy northerly swell is setting in, which much inconveniences the landing of passengers and freight at our wharf.

D. H. HITCHCOCK. THE HOLIDAY TRIP.

Mr. R. Grieve also accompanied the Kinau as a special correspondent of the GAZETTE and he furnishes the accompanying sketch of the excursion, giving notes of the various points of interest ontside the flow, which was the Rev. S. E. Bishop's special charge.

CROSS THE START.

The steamer Kinau backed off from her wharf at 4:15 p. m., on Monday, January 31st, on her excursion trip to the great eruption and lava flow of 1887. There were about one hundred and fifty excursionists in all, with a fair proportion of them ladies, who all appeared happy in the thought that they were about to visit the greatest wonder of the world. Soon Waikiki was left behind, Diamond Head passed, and the channel be-tween Oahu and Molokai, opened to view, with a fresh trade wind. The Kinau having warmed up to her work, put on her best pace across this rough stretch of water and was soon under the lea of Molokai.

Lahaina, Maalaea and Makena were passed in the night, and the Kinau was headed for the Hawaii channel, which fortunately proved to be in better humor than usual, and Mahu. kona (map, No. 6,) was reached about 7 a. m

FOR THE LAVA FLOW. After a short delay at Mahukona, the Kinau sailed Tuesday morning for Kawaibae— (map. No. 7,) once celebrated for its excellent potatoes, but now in a mild state of decayand then for the scene of the Great Lava Flow Up to this time no news later than what we had on leaving Honolulu was to be gained—even the reflection in the sky was not to be seen. Shortly after 12 o'clock noon the little sloop Healani (the King's yacht) hove in sight bound from Kailua for Kawaihae, and was spoken-her captain reporting, according to his advices, that the eruption on the wane. This news had a depressing effect on the excursionists-however we would all see for ourselves, this evening.

RAILUA.

At 2 g'clock the old seat of Hawaii's King

Hualalai. Conspicuous among its buildings stands the venerable church, formerly occu pied by the late Rev. L. Thurston, one of the oneer band of missionaries. Altogether Kailua presented a very attractive appearance, viewed from sea.

COOK'S, MONUMENT. Later on, the same afternoon, the steamer entered the beautiful Kealakekna Bay (map, No. 9). The passengers were landed and an opportunity offered to visit the monument erected to the memory of England's great erected to the memory of England's great circumnavigator, Captain James Cook, who was killed near that spot in 1777, by the natives of these Islands. This portion of the bay is known as Kaswaloa, and the shore is dotted with a few native houses. The country on the heights above presented a pleasant spect to the eye. Here is located the sanitariums for those afflicted with weak lungs and kindred complaints. There are a few small hamlets situated on the eastern side of

THE FLOW.

After leaving Kealakekua Bay the Kinau was headed direct for Madame Pele's seaside residence, which was reached by 9 p. m., and the location of the flow was found to be in almost total darkness, much to the disgust of the excursionists. In other words Madame Pele had put up her shutters and closed her show for the present. Upon sounding no bottom was to be found with a thirty-five fathom line. Captain Lorenzen dispatched Purser Beckley in charge of a boat to ascer-the depth of water, who returned reporting twenty-five fathoms too near the shore to admit of anchoring, and the steamer was hove to for the night. Meanwhile, by the aid of glasses, steam, and an occasional glimmer from crevices in the flow were seen. About midnight, for a short time, a bright glare was visible, somewhat obscured by clouds. At daylight this last ray of hope disappeared. The Captain, having faithfully carried out his part of the programme, and remained in the vicinity of the flow until 4 p. m. of Wednesday, giving all the tourists the most ample opportunity to examine the flow. The boats were lowered and manned, and all who desired were landed. Nearly all went to the scene and viewed it from various points of observation

OFF FOR HILO. At 4 p. m., the Kinau was headed for Hilo. passing on her way the various sugar estates situated in the Kau district-from Honuapo map, No. 12) to Pahala (map. No. 19) plantations, all of which presented a charming aspect from the deck of the steamer. The only landing made after the leaving flow was at Honuapo, where Quartermaster General Sam. Nowlien went on shore.

At Keauhou all seemed to be quiet, and we steamed on. During the night the Puna coast was passed, and at 6 a. m. Thursday the Kinau dropped her anchor in Hilothay. After breakfasting, the passengers were landed and proceeded to do the town and visit the various objects of interest to be seen. For a wonder the rain held up that day, and a very favorable view of the scen-ery in an about Hilo was obtained.

ON THE HOME STRETCH.

Shortly after one o'clock p. m., the Kinau was headed for Honolulu, and not a bit too soon, for the rain began to sprinkle with a fair prospect of a steady down pour. leaving Hilo, the country presents a thrifty and inviting aspect to the observer—dotted with numerous plantations, and apparently plenty of idle land for as many more, and an abundance of water running to waste. The only real difficulty in the way being the high bluffs, which in some cases are almost insurmountable.

HAMARUA.

The only landing made on this coast was at Laupahoehoe, just at night-fall. Here the of flumes which centered at the mill and also the stream tramway ascending the side of the bluff by means of a wire rope. The scenery in this section is beautiful, viewed from a distance, and the country generally ems to be well adapted for cape culture. but the water supply is not so plentiful as in the Hilo section—being mostly confined to smart showers. Night set in before the beautiful Waipio valley was reached, which was a disappointment to many of the sight-

seers. THE EXCURSION TO KORALA.

At 9 p. m. the Kinau reached Mahukona. and after landing a few passengers, proceeded on to Kawaihae, returning to the former place between 5 and 6 a.m. After an early breakfast, the passengers were sent on shore to participate in an excursion to the sugar section of Kohula—perhaps the finest in the group. At half-past eight o'clock the train started for Niulii with as merry and happy a crowd of excursionists as you could wish to look on. This portion of the programme was under the supervision of Mr. C. L. Wight, Superintendent of the Hawaiian Rail road, and was a perfect success from begin-ning to end. Many of the passengers had friends in this section and availed themselves of this opportunity of paying them a flying visit, while others contented themselves with viewing the splendidly appointed mills, and thrifty fields of cane extending as far as Niulii. To a stranger this was one of the finest sights that could be desired-the neat and commodious residences, with their mill buildings, and the waving fields of cane, all denoting thrift and prosperity, was a scene not readily to be forgotten by the visitors.

To the railroad belongs a fair share of the credit towards developing the resources of this fertile region. When the railroad is pushed on to Hamakua, and eventually to Hilo, which it will be in time, one of the most fertile cane producing countries in the world will be opened up to the capitalist, and the man of small means.

HOMEWARD BOUND.

At 4 o'clock p. m. the Kinau steamed out of Mahukona harbor, calling at her usual ports and reaching Honolulu at 6 a.m. on Saturday morning, after one of the pleasantest circuit trips one could desire to participate in.

THE TRIP A SUCCESS. Wilder's Steamship Company are to be congratulated on the success of this cheap circuit trip, and it is to be hoped that this will be the pioneer of many such in the near future, which will prove a good outing to

many at a moderate outlay. THE KINAU AND HER OFFICERS

The Kinau is an iron steamer of 1,000 tons, ouilt in the most substantial manner, and fitted up in elegant style throughout, and furnished with electric lights. The table is bountifully supplied with the best the mar-ket affords. The Kinau is commanded by Captain Lorenzen, a careful and experienced mariner, with Mr. Turnbull as First Officer. Mr. George Beckley the purser, ever ready and willing to aid the perplexed raveler by answering good humorenly the questions asked him, and George is ably econded by Mr. Wallace, as Freight Clerk. But the man on board who comes directly in contact with all and wins golden opinions, is the Steward, Mr. C. Brewster, whose man-agement of the cuisine of this trip, with a very large compliment of passengers, successful in every respect. It is but fair to say that from the Captain down to the lowst on board, everything was done which could conduce to the comfort and convenience of those temporarily in their care on the deep.

A LAST WORD. The flow may not yet be over; it may be

quiescent for but a short time. We have, however, given as clear a history as possible, up to date.
The editor and manager of the Gazzettz

desire to thank their many correspondents for their valuable assistance in thus being able to present so accurate a statement of facts. Where letters have not actually appeared, the information contained has been made use of in other ways. But for the promptitude of our correspondents no such as that of the Great Lava Flow of 1887 would have been published. Aloha.

Death of the Princess Likelike. LYING IN STATE.

expected, the Princess had refused nourishment for a long time time and her physicians Drs. McKibbin and Trosseau, considered her demise due to exhaustion. Just before her death Drs. Martin and Tucker were also called in.

At midnight, the body was removed from Waikiki to the palace, a soleum cortege wind-ing along the road to town, four long milesing along which the dead had so often driven when full of life, gaiety and happiness. The body was followed by their Majesties, the Princess Lilinohalam, Princess Kaiulani, Hon. A. S. Cleghorn, and a large number of retainers. Along the route the waiting was incessant, increasing in volume as the body approached the Palace. Sortly after 3 a. m., the mournful procession reached the Palace; the body was placed in the Throne room of the Palace and preparations were made for the lying in state.

At 10 a. m. everything was in readiness and a requiem service was held, the Bishop of Honolulu, assisted by the Rev. Alexander Mackintosh officiating. Only the near relatives of the deceased were present. His Majesty the King, Her Majesty the Queen, H.R. H. the Princess Lilinokalani, the Princess Kaulani, Hon. A. S. Cleghorn and the Princess Paparikalani cess Pomaikalani.
On the conclusion of the service the Palace

gates were thrown open and until 2 p.m. a long procession consisting of Hawaiians and foreigners filed slowly through the throne room to take a last look of one who had been for many years a prominent figure in Hawaiian official and social life. The lady was laid on a Catafaique in the centre of the throne room, and was robed in

white satin, the order of Kamehameha and

Kalakana being displayed on the breast. The features were calm and peaceful, though the wasting of disease could be plainly seen. Around the catafalque were ranged the ka-hili bearers, and a guard of officers of the Household troops. Masses of sweet scented flowers were heaped on tables and stands and at the foot was the cross, the emblem of Christianity. At the head of the bier, on

crimson cushions, were the coronet and some Her Majesty and the Princess Liliuokalani were seated at the head of the dead Princess, and on one side were the Ministers of Interior and of Foreign Affairs, the Auditor General and other officials. Around the room were grouped many personal friends. Tue Palace, both within and without, was draped in somber black, and a guard of honor was drawn up in front of the main entrance.

IN MEMORIAM. PRINCESS LIKELIKE.

Death has again laid its hand of the reigning family of Hawaii. In 1877, the heirapparent, Prince Leleiohoko, a bright lad of two and twenty, the youngest of the family, was suddenly stricken down, and ten years later February 2d, 1887, the same cold hand has claimed another, the Princess Likelike, again the youngest that was left...

The deepest sympathy is felt by all for the loss that their Majesty's and the Princess Liliuokalaui have sustained in thus parting from a sister, and a like feeling is expressed for the bitter loss of a scife, by the Hon. A. S. Cleghorn, and a mother, by the orphaned little Princess Kaiulani.

The deceased Princess was born January 13, 1851, and was therefore but just turned thirty-six at the time of her death. Curiously enough the same year that she first saw the light, her future busband, the Hon. Archibald Scott Cleghorn, landed on the Islands. As a child, the little Chiefess was very delicate, and soon after her birth she was sent to Kona, Hawaii, on account of its dry, healthy climate, and there she remained till the age of six. She was then removed to Honolulu, where she was first put in charge of the Roman Catholic Sisters, then of that yeteran missionary, Miss Ogden, and finally became a pupil of Miss Bingham, at the Kawaiahao Seminary, where she remained until her marriage on September 23, 1870. The marriage ceremony took place at Washington Place, the residence of Governor and Mrs. Dominis, the latter now the Princess Lili The ceremony was performed by the Rev. C. G. Williamson, Rector of St. Andrews, and among the witnesses who signed the register was Kamehameha V.

The life of the deceased lady was not an eventful one, but it was one in which she and a prominent social position to occupy, which entailed many social duties, and the she performed with dignity and grace.

Soon after her marriage, in August 1871, Mrs. Cleghorn and her husband visited Auckland, Sydney and Melbourne, return-ing to Honolulu in December of the same year. During the visit, great attention was shown to the Chiefess by the Govenors and officials of the various Colonies, and thus, early in life she was brought into contact with foreign manners and ideas. was ever after thrown open to those who visited these Islands, and visitors, distinguished and otherwise, have carried her name and the memory of many kindly attentions to every country of Europe, and almost every State in the Union.

Upon the accession of the present King in 1874, her position changed from a private to a public one, and the title by which she is best known was conferred upon her. Her daughter, the little Princess Kaiulani, the only direct youthful representative of the Hawaiian Royal family, was born October 16, 1875. In 1877, came the death of Prince Leleiohoku, which was a great blow to the Princess. They were so near of an age, and had so much in common, that she felt the loss more deeply, perhaps, than any of the family, deeply as they all felt. The Prince died April 10th, and the following month the Princess went to San Francisco for her health. On the voyage over she was dangerously ill, and it was probably only owing to the unremitting care of her friends on board, Hon, S. and Mrs. Parker, Mrs. J. Mott Smith, and the Hon. S. G. Wilder, that she survived the voyage. She remained in San Francisco till her health was fully restored and returned to the Islands in the steamer Likelike, which was named in her honor, the first steamer of the new departure in our poasting trade.

In 1878, Princess Likelike was appointed Governes of Hawaii, a position she resigned in 1880, when an allowance was granted to er out of the civil list. As Governess of th Island she was popular; she visited all the districts, having a special liking for Hilo and Kona. In 1884, she again visited San Francisco, being there at the same time that Queen Pomare of Tahiti passed through. Since that period, she has remained in her

island home, and chiefly in Honolnia.

The Princess attended the Episcopal Church here for many years, and was baptized and confirmed into that religious body in 1882. She ever took a lively interest in the progress of the church, and has sub-scribed liberally towards the fund for building the new Cathedral. Only a few days before her death she subscribed for and chose a window. Little did she think at the time that it would indeed be her memorial win-

The Princess Likelike will be long remembered for her kindness to children her pleasing manners, her many charities, her earnestness in organizing and assisting at many social entertainments and her never failing hospitality.

Such is a brief sketch of the career of her who has just gone from us. The life has passed under the eyes of most of our older esidents. The writer can well remember the young chiefess' first ball. It was at the old Court House, on the occasion of an enter-tainment given by the staff officers to Kame-hameba V. It was a slight girlish figure, simply clad in white, with a fragrant wreath of flowers twined in the glossy black hairso bright and merry was the face. And a few days ago one gazed on the same face and

few days ago one gazed on the same face and figure, grown almost girlish again in that

First dark day of nothingness.

The last of danger and distress.

Again there was the perfume of flowers, but it was the perfume of the tomb; the bright look had gone, the merry eyes had also addresses. closed forever.

Cot off in her prime was the Princess Like-like. Life for her seemed bright. Next April she was to have gone to Monterey, there to build up her own health and that of her child, to whom she was devotedly at-